Electronic Plants
A multi-functional smart companion for users

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User needs and design requirement
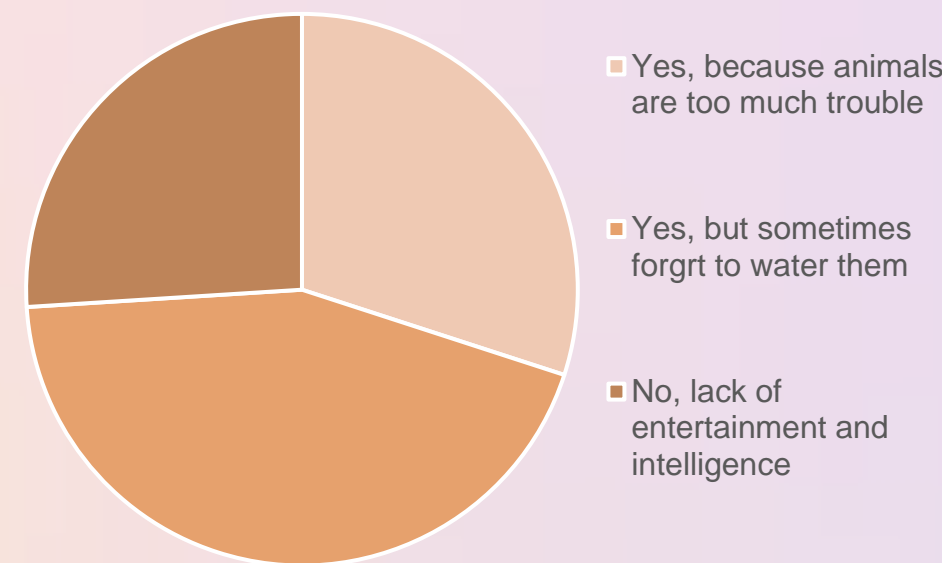
---- A questionnaire survey
- Animalis too noisy, need to walk them
- Young people tend to forget to water
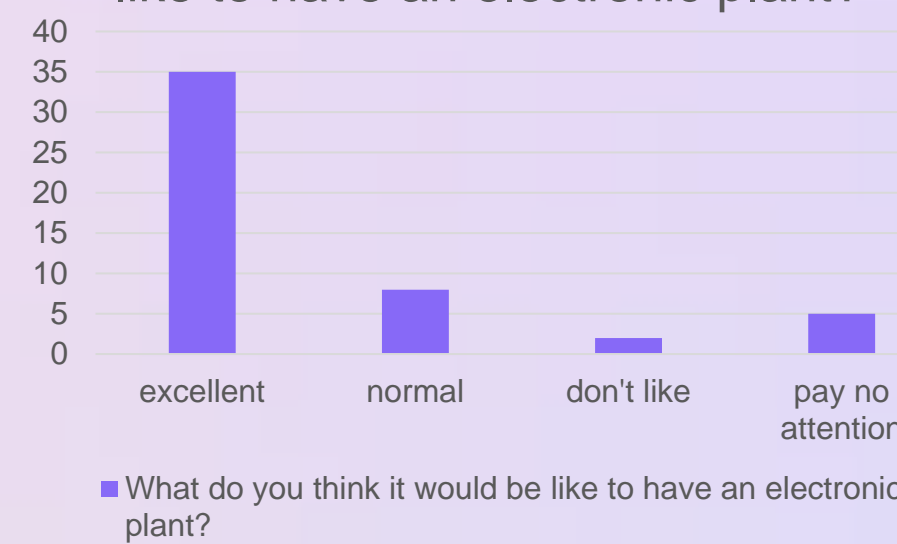- They want to integrate AI into plants

---- Electronic plants
- Balance animails and plants well
- Easily interacted with animalis
- Add entertainment compared to traditional plants

Do you usually raise plants? Why?
- Yes, because animals are too much trouble
- Yes, but sometimes forgrt to water them
- No, lack of entertainement and intelligence

What do you think it would be like to have an electronic plant?
- What do you think it would be like to have an electronic plant?
(excellent, normal, don't like, pay no attention)
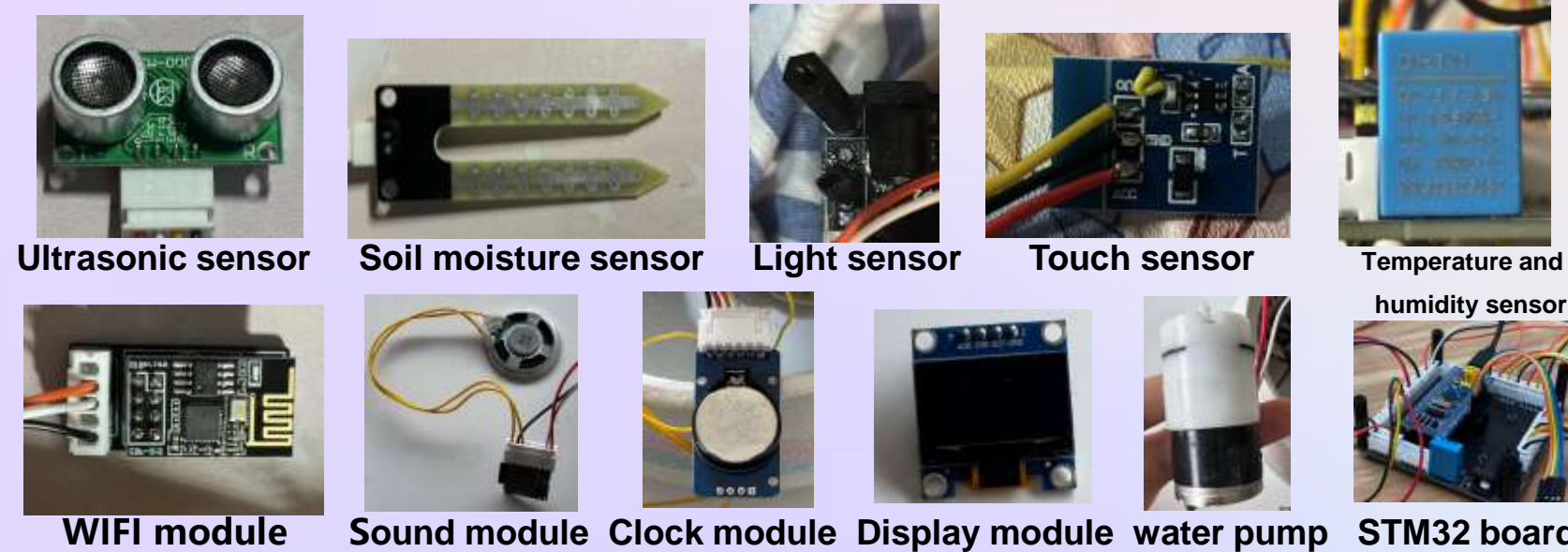
Hardware and software function

---- Hardware function
- Voice response function
- Touch Function(shock sensor)
- Emotion display function
- Light detection function
- Automatic watering function
- WI-FI function and temperature and humidity display function
- Clock display

---- Applied to the sensor and module

Ultrasonic sensor   Soil moisture sensor   Light sensor   Touch sensor   Temperature and humidity sensor

WIFI module   Sound module   Clock module   Display module   water pump   STM32 board

---- Software function
- systems and performance sensitive application development
- the distance reaches 20 centimeters, touch it
- touch more than 5 times, not to touch again.
- sitting at the table for an hour, get up and move around.

User testing and feedback

---- Good experience and want to own it

---- Satisfied with the design of overall appearance and realization of functions

- Tester Chen said: I used this electronic plant product for the first time, which brought me a very novel experience. I would love to buy one to take home!
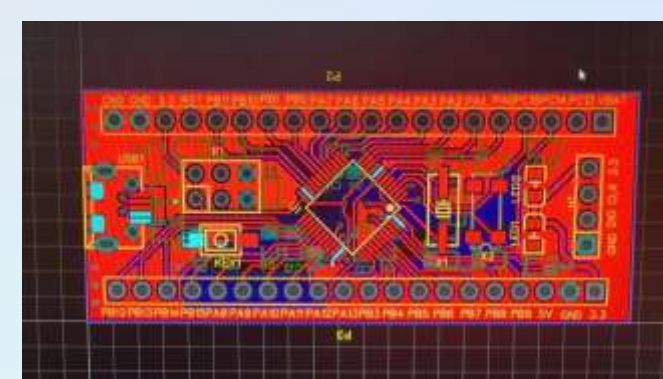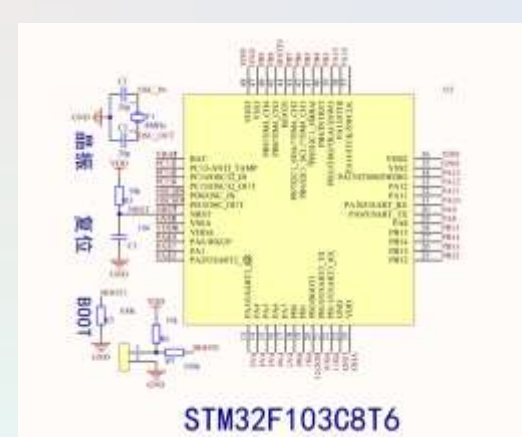
- Tester Liu said: This is really a great product! Not only looks good, but also has many functions!

Design features

---- AI entertainment
---- Sedentary reminder
---- Automatic watering
---- Beautiful and good-looking
---- Multiple functions

STM32F103C8T6

Contribution

Name	%	Description
Rui Fan	20%	Write report Part2 and Appendix section, integrate report. Edit functional part of video, integrate video. Determine the content of the poster. Make the PowerPoint.
Liangrui He	20%	Presentation for the whole product, write about hardware and software of report, videos for taking and editing
Ruijia Xi	20%	Participated in the manufacturing process of sensors and STM32 boards. Responsible for recording the meeting minutes and material sheets in the appendix of the Report. Responsible for the main editing of the functional part of the video assignment. Participated in the writing and recording of the sensor part of the poster.
Jiayi Qi	20%	Write the abstract and introduction section of the report. Write the script for the video shoot. Responsible for poster design, layout and integration, as well as part of the content writing
Zhicheng Jia	20%	Participate in product production and testing, Video editing and production, the Prototyping and Testing section of the report

Conclusion and Future work

Electronic plants combine aesthetics and technology to provide a new plant care experience. Intelligent features include voice interaction, automatic watering and health alerts to meet user needs. The innovative design shows the perfect integration of technology and life, bringing convenience and comfort to users.

---- Future work
- Talk to the electronic plants
- Add the expressions on the OLED screen, and draw them in the apps